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A 'HUMAN NEEDS' DIET IN APRIL, 1952

Twelve years of rationing have wrought a gradual and almost unnoticed change in the concept of ' human needs ' with regard to food, owing to the change that has taken place in the concept of ' essential foods '. In the course of these years these terms have become ambiguous, and in the minds of a wide public are now both linked to two conflicting definitions. In the background there is the old definition of a ' human needs ' diet as a diet which at a minimum cost yields sufficient nourishment without compelling people to eat strange dishes to which they might object. In the foreground, there is the newer one, first formulated when war-time scarcity of food made rationing necessary, and now widely accepted as an axiom : all rations are essential for proper nutrition. But the amounts of rationed foods allowed per head change frequently. Is one shilling's worth of meat ' essential ' or two shillings' worth ? One ounce of bacon or five ounces ? Half a pound of sugar or three-quarters of a pound ? A reduction in the allowance of one food is by no means always accompanied by an increase in the allowance of another representing a nutritional substitute. In fact, dear meat and bacon could be replaced nutritionally by cheap herrings, kippers, and bloaters, and when the ration of one or both of the meat foods is relatively high such a replacement would be possible in part without compelling a family to eat a very monotonous diet. But it would be wholly unrealistic now, after twelve years of rationing, to suggest such a replacement if the proposed dietary is intended to be more than a mere academic exercise. Nowadays, most housewives with small incomes will try to buy all their rations, even if that means foregoing all vegetables except potatoes, and they will be convinced that by acting thus they are providing for their families the best possible nourishment that they can afford. But if we agree that this psychological factor has to be taken into account when mapping out a ' human needs ' diet that a housewife can actually be expected to buy, we must realize that we are giving up any clear nutritional definition of ' human needs ' and are introducing an element that may have an inflationary effect on the figure of total cost, independent of any rise in prices.

This inflationary element can be traced in our diet schedule compiled in April 1952 (Table I)[1], as compared with that for November of last year.[2]

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[1] As always in this series, the dietary is compiled for a family consisting of husband, wife and three children of school age. The prices of the foods that figure in it were collected in Oxford, Banbury, Abingdon, Thame, Aylesbury, Reading, Newbury, Slough, High Wycombe, and London (Bethnal Green and Lambeth).

[2] *A ' Human Needs ' Diet in November*, 1951. BULLETIN, Vol. 13, Nos. 11 and 12.

TABLE I

Weekly 'Human Needs' Diet for a Family of 5 Persons

	Quantity	Price per Unit[1]		Changes since Nov. 1951 Quantity	Cost	
		s.	d.		*s.*	*d.*
(*a*) Rationed Foods :						
1 Meat	3 lb 5 oz.	1	9	—1 lb 3 oz.	*— 1*	*3*
2 Bacon	1 lb. 9 oz.	3	0	+ 10 oz.	*+ 2*	*6*
3 Margarine	2 lb 3 oz.	1	2	...		...
4 Cooking Fat	10 oz.	1	4	...		...
5 Sugar	3 lb 2 oz.		6	...		...
6 Tea	8 oz.	3	4	...		...
7 Cheese	5 oz.	2	0	— 2½ oz.	+	*1*
8 Eggs	10 eggs		4½	+ 5 eggs	*+ 1*	*10½*
Cost of Group (*a*)		*21*	*6*		*+ 3*	*2½*
(*b*) Fresh Milk :						
9a Ordinary	18 pt.		6	...	+	*9*
9b School	5 pt.		free	...		...
Cost of Group (*b*)		*9*	*0*		+	*9*
(*c*) Main Carbohydrate Foods:						
10 Bread	20 lb		4¼[2]	...	*+ 1*	*5¼*
11 Flour	2 lb		5¼[3]	...	+	*7¼*
12 Potatoes	21 lb		2[4]	...	+	*7½*
Cost of Group (*c*)		*11*	*8*		*+ 2*	*2*
(*d*) Fresh Vegetables :						
13a Carrots	1 lb		6	—2 lb 8 oz.	—	*6¼*
13b Swedes	4 lb 8 oz.		3	+1 lb	+	*1¼*
13c Cabbage	5 lb		5	—1 lb	+	*2¼*
13d Onions	8 oz.		8	...		...
13e Beetroot	3 lb		3	+ 3 lb	+	*9*
Cost of Group (*d*)		*4*	*9½*		+	*6¼*
(*e*) Other Foods :						
14a Peas	1 lb		11	+ 4 oz.	+	*2¾*
14b Beans	1 lb 4 oz.		11	+ 12 oz.	+	*9¼*
14a Lentils	4 oz.	1	4	...	+	*0½*
15 Rolled Oats	2 lb 8 oz.		10	...	+	*2½*
16a Macaroni	1 lb	1	0	...	+	*1*
16b Semolina	1 lb		8	...	+	*0½*
17 Rice	1 lb		10	...		...
18 Jam[5]	6 oz.		5½	...		...
19 Syrup	8 oz.		11	— 8 oz.	—	*4½*
20 Dried Fruit[6]	8 oz.	1	0	...		...
21 Cocoa	4 oz.	1	7½	...		...
22a Herrings	2 lb 8 oz.		10	— 8 oz.	—	*5*
22b Kippers	...		...	—3 lb	*— 3*	*0*
23 Liver	12 oz.	1	10	+ 12 oz.	*+ 1*	*4½*
24a Apples	...		...	—1 lb	—	*6*
24b Rhubarb	1 lb		4½	+1 lb	+	*4½*
25 Condiments	...	1	3	...	+	*3*
Cost of Group (*e*)		*14*	*4½*		—	*11*
Total Cost		**61**	**4**		+ 5	8¾

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[1] The price unit is : milk, one pint ; eggs, one egg ; cocoa, ½ lb packet ; condiments, total outlay ; all other foods, lb.

[2] 1¾ lb. loaf, 7½d.

[3] 3 lb bag, 1s. 4d.

[4] 7 lb, 1s. 2½d.

[5] Plum jam or marmalade.

[6] Figs or dates.

Since then, the meat ration has gone down and the bacon ration up. For the housewife, meat and bacon are close substitutes in the preparation of her meals, and if in November 1951 she could buy 4½ lb. of meat and 15 oz. of bacon, an additional 10 oz. of bacon might appear rather a meagre compensation for the loss of 1 lb. 3 oz. of rationed meat. From a nutritional view point, the 'compensation' is meagre indeed, for with an expenditure on these two foods 13½ per cent above that in November, about the same amount of calories, but 17½ per cent less of animal protein, would have been bought in April. This intake could have been achieved at an increase in expenditure of only 1 per cent if, instead of the 10 oz. of bacon, 7 oz. of herrings and 11 oz. of rice had been added. In fact, owing to the inclusion of 12 oz. of liver in the April dietary, absent from that in November, the total quantity of meat foods in our April dietary was 3 oz. above that in our November dietary. Yet the inclusion of liver seemed nutritionally desirable not in order to add to the dietary animal protein in the form of meat, but because liver is a very good source of vitamin A, a sufficiency of which could have been obtained in November from cheap carrots. By the end of April, only new carrots were available, which were rather expensive, and of which, therefore, only a small quantity was likely to be bought. Liver was scarce, but, apparently, could be obtained on occasion everywhere, and liver and bacon is a favourite dish in many families. Bacon would also lend itself to the making of customary dishes with pulses, the total quantity of which has been raised from 1½ lb. in November to 2½ lb. in April. As against that we have reduced the total quantity of herrings and kippers[1] from 6 lb. to 2 lb. 8 oz. These changes would leave the total intake of protein from the diet almost unaffected, but they would reduce the intake of animal protein by one-eighth, making it 44½ per cent of the total basic protein requirements, as compared with approximately 51½ per cent in November. This would not be a serious reduction, and such comparatively slight shifts in the nutritional balance are inevitable in a diet the nutritional and culinary contents of which are liable to frequent readjustments.[2]

The price of flour in Table I is that of plain flour, instead of self-raising flour, as in November. Since November, the price of the cheapest flour had gone up by about 1½d. a lb., and since for the preparation of many dishes only plain flour is required, some housewives seem to return to the habit—much more prevalent before the war—of buying plain flour and adding baking powder only when necessary. One lb. of self-raising flour was about 1d. dearer than plain flour, so that for the 'human needs' dietary the difference amounts to 2d. We have, however, added 3d. to the total cost of condiments, to allow for the purchase of baking powder and also for the purchase of additional seasonings, which would be called for by the increased consumption of pulses.

[1] Assumed to be eaten mostly for dinner and supper, the main hot breakfast dish being porridge.

[2] Some nutritionists consider animal protein altogether unnecessary in the diet of normal adults; others who think that it is an essential item usually put the minimum desirable intake at 30gm. per day.

The prices of some of the foods included in the dietary varied considerably from district to district. Nearly everywhere, a very skilful housewife could have bought it from a few pence to a few shillings cheaper than shown by us. This, however, would generally have necessitated her going from shop to shop and enquiring for the price of every item—a procedure that, in practice, is often scarcely feasible. At the outlay of 61s. 4d., shown in Table I, the diet could be bought everywhere, provided a housewife patronized as a rule the less expensive shops.

Table II shows the nutritional intake from the 'human needs' diet in terms of Male Adult Equivalent. As compared with the intake provided for by the November dietary only the figures of animal protein and of vitamin C show a decline that is really significant. The intake of vitamin A in April could have been much higher than shown by us, since it would depend largely on the kind of liver bought. We have assumed it to be ox liver, which, indeed, was the kind most commonly available. But sheep's liver, too, was to be had, which is about three times as rich in vitamin C as ox liver.

TABLE II

Nutritional Intake from Diet in Table I

	MAEs[1] of Family of 5 Persons	Requirement per MAE per Day	Intake from 'Human Needs' Diet per MAE per Day	
			Nov. 1951	April 1952
Calories	3.73	3.000	3100	3100
Protein, gm.	4.43	70	85[2]	84[3]
Calcium, gm.	7.13	0.8	0.6	0.6
Iron, mgm.	5.40	10	13	15
Vitamin A, Intern. Units ...	5.00	3000	3850	3500
Vitamin B_1, mgm.	4.68	0.90	1.6	1.7
Vitamin C, mgm.	5.00	30	52	35

[1] Male Adult Equivalents.
[2] 36 gm. of this are animal protein.
[3] 31½ gm. of this are animal protein.

The lower intake of vitamin C in April would be due mainly to the decline in the vitamin content of old potatoes at the end of the season; however, the total intake would still be quite satisfactory. For although in our calculations we have deducted 50 per cent of the average vitamin C content of all the foods that require cooking and preparation, so as to allow for inevitable losses, our intake figure of vitamin C is still nearly 17 per cent higher than would actually be required.

The proportion of the total outlay taken up by each of the five groups in Table I is compared in Table III with the corresponding supply of calories and of proteins. In this setting the group of fresh vegetables appears nutritionally negligible, because no notice is taken of the main importance of vegetables as sources of minerals and vitamins.

In Table IV, the figures of cost and of nutritive values of the several food groups are expressed as indices based on the corresponding figures obtained

TABLE III

Relative Cost and Nutritive Values of Food Groups in Table I

	Group (*a*)	Group (*b*)	Group (*c*)	Group (*d*)	Group (*e*)	Total
	%	%	%	%	%	%
Outlay	35	14½	19	8	23½	100
Calories	29½	10	39	1½	20	100
Protein, total ...	14½	16	39	2¼	28¼	100
do., animal ...	39	43	—	—	18	100

TABLE IV

Indices of Cost and of Nutritive Values of Food Groups in Table I (Nov. 1951 = 100)

	Group (*a*)	Group (*b*)	Group (*c*)	Group (*d*)	Group (*e*)	Total
Outlay	117½	109	123	112	94	110½
Calories	100½	100	100	107½	97½	100
Protein, total	89½	100	100	104½	122	98½
do., animal			—	—	62½	87

from the dietary for November 1951. In particular, the rise in the cost of rationed foods and of the cheap carbohydrate foods springs to the eye. For the two groups the causes of this rise are, however, somewhat different: in the group of rationed foods it is largely the ' substitution ' of bacon for meat, discussed above, and the increased allowance of eggs (a dear protein food), which are responsible for the relative increase in cost, while the increased outlay required for the carbohydrate foods reflects the substantial increases in the prices of bread and flour.

From mid-November 1951 to March 11th, 1952, the Ministry of Labour index of food retail prices had risen by about 5 per cent[1] (no figures later than March are at present available). From mid-November to the end of April, 1952, the cost of the ' human needs ' diet had increased by about 10 per cent, this much steeper increase, however, resulting partly from changes in rationing and the consequent shift from relatively cheap to relatively dear foods—less meat, herrings and kippers, and more bacon and eggs. The actual increase in prices, including the seasonal increases in the prices of vegetables, amounted to approximately 7 per cent.

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[1] The weighting of the index was changed in January, 1952, and we have assumed that the indices calculated by means of the previous weights—applied since June, 1947—and of the new weights record percentage changes that are identical: this is approximately true.

INVESTMENT IN BRITAIN & THE UNITED STATES

(1) Recent empirical research[1] has provided more reliable statistical material than hitherto available on the long-run relationship between capital investment and the consequent increase in national income. No simple connection has been found, but economic fluctuations and technical progress seem to dominate all other factors. Such evidence as we have points to the conclusion that, since the war, capital investment in America was rather more effective in promoting productivity, and thus output, than before the war.[2] To some, perhaps to a considerable, extent this is due to the fuller utilisation of existing resources. Technical progress, however, has apparently also speeded up, and this may be partly due to the increased rate of capital investment in America. Thus there seems some reason to hold the view that the maintenance of our relative competitive power will, at least partly, depend on the comparative level of investment in this country.

(2) Table I gives the estimated expenditure of the U.S. manufacturing and mining industries on durable goods between 1941 and 1945. It is seen that the gross outlay of the heavy industries on purchases of durable goods was almost 40 per cent of their existing assets in 1940.

(3) Great Britain, according to Professor Austin Robinson, did not succeed in making good the war-time losses, due to damage and lack of replacement, until 1950.[3] He put the net losses and disinvestment due to the war at £4,500m. and net investment between 1946–50 at £4,200m. both at 1945–6 prices.

(4) Since 1945 gross investment in the U.S. in plant and equipment alone amounted to $132.6 billions. The Survey of Current Business estimates that the addition to output capacity was of the order of magnitude of 50 per cent. U.S. Corporations' gross investment expenditure amounted to $178 billions, of which $101 billions was on fixed capital $35 billions on inventories, and $42 billions on other assets. Investment in plant and equipment of U.S. manufacturing industries between 1945 and 1952 alone will amount to $66.5 billions. In 1951 investment of this type was at a rate of $11.1 billion and was expected to increase to $12.0 billion in 1952.

It is seen that investment in steel, petroleum, electrical and other machinery, and chemicals was especially heavy. The increase in the capacity of the last two was over 100 per cent; of petroleum some 50 per cent and of steel 30 per cent. It should be noted that this last corresponds to an increase which is estimated at 25m. tons in four years, which is equal to the combined output of France and Britain (see Table II).

(5) As against this, gross fixed capital formation in Britain[4] (see Table III): Fixed investment in machinery *i.e.* all machinery including that purchased

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[1] R. W. Goldsmith, ' The Growth of reproducible tangible wealth in the U.S. from 1805 to 1950 '. Mimeograph esp. pp. 56A–W.

[2] *Ibid.*, Table 5, The capital coefficient has fallen from well above 3.0 to just above 2.5.

[3] London and Cambridge Economic Service. May 1950, p. 42.

[4] Preliminary National Income and Expenditure Estimates Cmd. 8486, March 1952.

TABLE I

Estimated Private Durable Goods Expenditures in the Manufacturing and Mining Industries, 1941–45, related to Gross Capital Assets, December 31, 1940

(In millions of dollars)

Industry *(Classification by pre-war activity)*	*Expenditures*						*Gross capital assets (Plant and equipment) 31–12–1940*	*Expenditures 1941–45 as percentage of gross capital assets 31–12–1940*
	1941	*1942*	*1943*	*1944*	*1945*[1]	*Total 1941–45*		
Total	4080	3170	2610	2890	3770	16520	51820	32
War Industries—total	2790	2220	1980	2050	2630	11670	31340	37
Chemicals and rubber	410	280	180	280	350	1500	3860	39
Petroleum	830	700	930	1020	1030	4510	10620	42
Iron and steel	370	390	250	190	220	1420	6550	22
Nonferrous metals...	260	170	100	60	60	650	3800	17
Machinery	420	350	260	250	390	1670	3470	48
Automobiles and parts	300	190	130	180	540	1340	2050	65
Other transportation equipment	200	140	130	70	40	580	990	59
Nonwar industries—total	1290	950	630	840	1140	4850	20480	24
Food, beverages and tobacco	350	220	160	210	240	1180	5630	21
Textiles, apparel and leather	220	150	70	150	130	720	3770	19
Other[2]	720	580	400	480	770	2950	11080	27

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[1] Preliminary : based on data of large companies only.

[2] Includes primarily paper and paper products, printing and publishing, and lumber and building materials.

Table II

Investment in plant and equipment in the U.S.
($ million)

Industry	*1945*	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*Total 1948–52*
Manufacturing	3983	6790	8703	9134	7149	7419	11130	12070	66450
Durable goods industries	1590	3112	3407	2483	2594	2135	5168	5994	28483
Primary iron and steel	198	500	638	772	596	599	1304	1689	6296
Primary non-ferrous metals	54	93	178	193	151	134	277	533	1613
Fabricated metal products	216	356	370	343	271	350	421	398	2725
Electrical machinery and equipment	123	282	304	289	216	245	359	493	2311
Machinery except electrical	316	511	519	527	383	411	675	718	4060
Motor vehicles and equipment	262	591	504	474	349	510	736	834	4260
Transportation equipment excluding motor vehicles	56	109	95	106	87	82	182	248	965
Stone, clay and glass products	100	241	326	269	181	280	388	348	2133
Other durable goods[2]	265	429	473	510	360	524	826	733	4120
Non-durable goods industries	2393	3678	5196	5561	4555	4356	5692	6075	37868
Food and kindred products	337	513	669	721	626	523	657	476	4522
Beverages	97	157	277	332	249	237	311	262	1922
Textile mill products	209	342	510	618	471	450	695	512	3807
Paper and allied products	116	232	271	383	298	327	489	372	2488
Chemical and allied products	376	800	1060	941	670	771	1283	1453	7354
Petroleum and coal products	879	1087	1736	2100	1789	1587	2014	2478	13670
Rubber products	118	139	143	102	81	102	187	250	1122
Other non-durable goods[2]	261	408	530	454	371	359	327	273	2983
Mining	443	557	693	802	738	684	796	852	5565
Railroad	552	573	906	1319	1350	1136	1541	1539	8916
Other transportation	321	659	798	700	525	437	511	609	4560
Electric and gas utilities	630	1045	1897	2683	3140	3167	3577	3864	20003
Commercial and miscellaneous	1477	3298	4429	5394	5119	4917	5735	5189	35558
Total	7406	12922	17326	20032	18021	17832	23291	24123	140953

Source: Survey of Current Business. April 1952 (two misprints have been corrected).

TABLE III

Fixed Capital Formation

£ million

Sector	1948	1949	1950	1951	1948–51
Expenditure on equipment and buildings					
Agriculture, forestry and fishing ...	81	78	79	80	318
Coal mining	24	31	27	29	111
Manufacturing industry	371	419	492	585	1867
Electricity, gas and water	136	167	197	226	726
Transport and communications (excluding road goods transport) ...	242	265	257	265	1031
New housing	330	298	302	310	1240
Social services and administration	72	91	111	128	402
Other	135	165	157	185	642
Total	1391	1514	1622	1808	6337
Legal fees, stamp duties, etc. ...	46	49	50	52	197
Total	1437	1563	1672	1860	6534

by coal mining and public utilities etc., increased from £667m. in 1950 to £803m. in 1951. Unfortunately this increase is almost wholly accounted for by the increase in the prices of metal goods. No satisfactory price index is available for these. The index for the export price of metal manufactures and engineering products, however, might be regarded as a rather conservative indication of their trend. This has increased from 100 in 1950 to 121 at the end of 1951, constituting an average rise of about 15 per cent between the two years.

(6) Investment in plant and building in manufacturing proper was £585 millions in 1951. No depreciation allowances are given. Thus it is difficult to arrive at the figure of *net* additions to total fixed capital in manufacturing. An earlier White Paper gives some clues.[1] The estimates made there for the last pre-war year of 1938 amounted to £100m. If we revalue this figure by the price index of metal goods we get roughly £300m. This guess of depreciation needed would certainly tend to be conservative as technical progress in England has quickened and capacity is more fully utilized, both necessitating higher depreciation allowances. Applying this figure to the estimate of gross investment, we get an estimate for net additions to capital in manufacturing of at most between £250 and £300m.

(7) By subtracting from the total investment in manufacturing the value of the work of construction industry performed for manufacturing[2] we get the order of magnitude of the gross investment in machinery of manufacturing, at roughly £450m. Net investment on the basis of the same method can be estimated at between £175 and £225m. in 1951.

According to recent statements investment in plant and equipment is to be reduced by £100m. in 1952, the resources thus released being diverted to export. This is presumably in addition to the diversion announced earlier due to re-armament. Thus the total diminution of civilian investment in machinery and equipment will be larger than £100m.

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[1] National Income Cmd. 6520, Table D. p.9.

[2] London and Cambridge Economic Service. New Series. *The Times Review of Industry*, March 25th, 1952, p. viii.

Now part of this cut will fall on other types of metal goods *e.g.* vehicles, and some of the cut in machinery will be at the cost of transport and public utilities rather than manufacturing industry proper. Nevertheless the main bulk of the cut will have to be borne by manufacturing. The expected level of gross investment in manufacturing equipment in this country in 1952 will therefore hardly be more than some £350m. to £400m. This contrasts with an American investment in machinery in manufacturing of some $12,000m. or £4,280m.

(8) The striking contrast between these figures is further intensified by the fact that a much larger proportion of our population is engaged in manufacturing than in the U.S., 8.7m. out of 51m. as against 16m. out of 155m. Thus U.S. gross investment in equipment per head of the workers employed in manufacturing is expected to be £275 as against the British £40–45, *i.e.* six-fold.

(9) These facts do not support the argument that the proposed cuts in capital investment can easily be borne because British manufacturing investment in fixed capital was running at a very high level. Nor do they bear out the view that no further investment was required in Britain as past investment had already sufficiently provided for an increase in working population.[1]

T. BALOGH

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[1] *E.g.* Mr. Harrod in the District Bank Review, March 1952.

THE NUMBER OF INCOMES AND THE EFFECT OF THE BUDGET

In the BULLETIN of March, 1952 (Vol. 14, No. 3), an analysis of the redistribution of income due to the recent budget was given. This note is in the nature of an addendum to that paper, and shows an estimate of the numbers affected in various ways by the budget changes.

More information about incomes, taxpayers and their families has been issued by the Treasury in the past three months. This gives a basis for analysing income redistribution in a little more detail.

The total number of assessed incomes in broad income ranges on the level of incomes now ruling was given by the Chancellor of the Exchequer on March 19th and 21st, 1952. They may be compared with previous published figures as follows :—

TABLE I

Number of incomes, by income ranges

Number of incomes (millions)

Income Range (£ p.a.)	*1949–50*	*1952*
135—500	16.24	14.25
500—700	2.97	3.47
700—1000		1.38
1000—2000	0.60	0.95
2000 and over	0.24	0.27
Total	20.05	20.32

The rise in incomes in the ranges up to £2,000 a year over the past two and a half years is clear. Our first task is to find the income levels in 1952, which correspond to those of 1949–50. In this way we can use the 1949–50 census information about numbers of incomes to derive estimates of numbers in each income bracket in 1952.

The lowest ranges of income are of most significance for present purposes, because most of the tax-assessed incomes and most of the population are covered there, and because it is within the lowest ranges that the less obvious and sometimes unintentional kinds of redistribution between families and individuals take place. Most of the income in the lowest range comes from wages and salaries, and the incomes shown in the Inland Revenue figures for 1949–50 were probably earned in the calendar year 1949.[1]

Using the Ministry of Labour's earnings figures up to October 1951, and after that the index of wage-rates, it is estimated that incomes now in the range up-to-£500 a year have increased, on average, by about 25 per cent since June 1949. This estimate enables at any rate the lower income ranges to be adjusted to current income-levels. The £135–£500 a year range consists of 88 per cent wages, salaries and wife's earnings, 4 per cent profits and professional earnings, 4 per cent investment income, and 4 per cent for

[1] This assumption is the same as the C.S.O. makes for National Income purposes.

the rest (most of this being family allowances). Therefore using the average increase in wages (for all workers) as representative of the average increase in incomes of the group does not introduce a serious inaccuracy in the present context.

The total number of incomes recorded in the Income Census in the £135–£400 a year range in 1949 is just about the same as the figure given by the Chancellor for the £135–£500 a year group in March 1952, which suggests that the present estimate is not too inaccurate.

We are now concerned with the population in three groups, those with assessable incomes up to £500 a year (now), those with more than £500 a year, and those outside tax assessment altogether.

The family circumstances of people assessed for income tax, as recorded by Inland Revenue are as follows :—

TABLE II

Family circumstances of people assessed in 1949–50 in ranges up to £400 and over £400 and assumed to be up to £500 and over £500 a year now

	Up-to-£500 a year	*Over £500 a year*	*All assessed incomes*
		(Millions)	
*Single people**			
No children or dependants	6.57	0.70	7.27
1 child	0.14	0.05	0.19
2 or more children	0.06	0.01	0.07
1 child and one or more dependants	0.07	0.02	0.09
2 or more children and one or more dependants ...	0.04	0.01	0.05
1 or more dependants	0.94	0.18	1.12
Total single people	7.82	0.97	8.79
Married couples			
No children or dependants	2.99	1.90	4.88
1 child	1.73	1.15	2.88
2 children	0.94	0.85	1.88
3 children	0.31	0.33	0.64
4 or more children	0.16	0.19	0.35
1 child and one or more dependants	0.08	0.10	0.18
2 or more children and one or more dependants ...	0.04	0.08	0.12
1 or more dependants	0.19	0.20	0.39
Total married people	6.44	4.80	11.24
Total single and married	14.26	5.77	20.03

*Includes widowed and divorced people.

The tax-assessment figures are known to be incomplete. Something like half-a-million children were estimated to have been left out of tax assessment in 1949–50. Almost all of these must belong to the lower income ranges, since the most usual reason for the omission is that people do not bother to record extra children if their present allowances are sufficient to remove their liability to tax. This defect is a serious one in that it probably means that the number of one-child families is over-stated, and also that the figures for the two income groups are not comparable. This may help to explain the curious figures for married couples with 3 children and for married couples with four or more children, from which it appears that there are actually more of such families in the over-£500 a year range than in the up-to-£500 a year range.[1]

An estimate can now be made of the number of people covered by the assessed incomes in each range. The results are as follows :—

TABLE III

Number of Persons covered by Tax-Assessment Figures in 1952

	Total Persons	*No. of children included*
	(Millions)	
Up-to-£500 a year	28.1	5.8
Over £500 a year	16.1	4.5
Total	44.2	10.3

These figures do not include the half-million undeclared children already referred to. It is probable that the number of children actually covered by tax-assessed incomes is nearly eleven millions, of which just under six-and-a-half millions are in the up-to-£500 a year range.

It appears that there are about six million people (not incomes) not covered by tax-assessment. These people will include : pensioners not included elsewhere as dependants; most of the institutional population; some people registered as unemployed; some of the Armed Forces; some juveniles; and any others getting less than £135 a year.

There are about four million old-age pensioners, and there must now be relatively few old people not entitled to, or in receipt, of state retirement pensions. The tax-assessment figures account for something less than one million dependants altogether, and not all of them are old people. The total number of old people in receipt of National Assistance is less than three-quarters of a million. There must be at least a million old people in the sub-assessment population, and there may be as many as three millions.

The total number of people in prisons, asylums and other institutions is little more than 0.1 million. Registered unemployed total over 400,000; but some of these will already have been counted either as dependants or wives of taxpayers, or as potential taxpayers on their own account. The Armed Forces total 0.86 million, but the number who earn little enough to escape tax-assessment must be substantially lower. We are left with others in civil employment, but earning less than £135 a year—or successfully evading the tax-gatherers. How many incomes there are in these categories and how many people are covered, it is scarcely possible to guess.

[1] A married couple with 3 children and an earned income of £500 a year would not have to pay tax, even before the Budget. A married couple with 2 children would have paid no tax up to about £400 a year.

To sum up: we have 44.2 millions covered by tax-assessments; 0.5 more children belonging to the above group; 0.3 million post-1949 incomes now estimated by the Treasury to come into the assessment ranges, plus their families; 1—3 million pensioners; 2—4 million other people covered by sub-assessement incomes.

II. The Budget Redistribution

The figures in Tables II and III can now be used to make an estimate of the redistributive effects of those parts of the recent Budget which can be measured.

The reduction in food subsidies costs 1s. 2d. a head per week. This is completely offset by the extra 3s. on family allowances for all families with three or more children, who were not paying any income tax, four or more for those paying 3s. in £ as their marginal rate, five or more at a marginal rate of 5s. 6d., and seven or more at a marginal rate of 9s. 6d. This accounts for some 700,000 families (in the tax-assessment ranges) covering some three-and-a-half million people. People with three children are however still worse off to the extent of the extra 8d. a week on National Insurance contributions. This covers over 500,000 families of the 700,000 otherwise no worse off, and numbering 3 million people. On the other hand, the burden is heaviest for families with one child, or with dependants, who do not receive family allowances.

The net additional burden (assuming only one National Insurance contribution to be paid per family) is as follows :—

Table IV

The effects of reduced food subsidies, increased National Insurance contribution and increased family allowances (annual amounts)

Family	*Extra payment for food subsidies*	*Extra National Insurance contributions*	*Family allowances*	*Net reduction in purchasing power*	*Reduction per head*
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Single people	3 0 0	1 14 8	—	4 14 8	4 14 8
Single people with 1 child or dependant	6 0 0	1 14 8	—	7 14 8	3 17 4
Single people with 2 or more dependants or 1 child and 1 dependant	9 0 0	1 14 8	—	10 14 8	3 11 7
Married couple	6 0 0	1 14 8	—	7 14 8	3 17 4
Married couple with 1 child *or* 1 dependent	9 0 0	1 14 8	—	10 14 8	3 11 7
Married couple with 1 child *and* 1 dependant	12 0 0	1 14 8	—	13 14 8	3 8 8
Married couple with 2 children ...	12 0 0	1 14 8	7 16 0	5 18 8	1 9 8
Married couples with 3 children ...	15 0 0	1 14 8	15 12 0	1 2 8	4 6
Married couples with 2 children and 1 dependant	15 0 0	1 14 8	7 16 0	8 18 8	1 15 9

These are the typical families, and, leaving the sub-assessment incomes out altogether, there are nearly three millions of them for whom Table IV represents the complete effects of the Budget, because they paid no tax before. These families include some nine million people.

The income-tax concessions help to counterbalance the extra burdens for some families. For those families who were already below the effective tax levels, no such concession is possible. The redistribution affecting them has already been described in Table IV.

For those who were, or are, liable to tax, it depends on the level of their income, their allowances, and the resultant tax bill, whether they gain or lose on the deal. The gains and losses can be worked out by finding the level of income for each group at which the tax concession is equal to the extra burden.[1] Below this level, all ' families ' in the group must be worse off, and above it better off.

TABLE V

Effects of the Budget according to family circumstances

Family circumstances	2 *Extra burden per family*	3 *Critical Income level*	4 *Number of assessed incomes below critical level*	5 *Number of people covered by Column 4*
	(£ per annum)	(£ per annum)	(millions)	(millions)
Single people	3 0 0	210	1.7	1.7
Single people with 1 child or dependant ...	6 0 0	300	0.5	1.1
Single people with 2 or more dependants *or* 1 child and dependants	9 0 0	400	0.1	0.4
Single people with 2 children	1 4 0	360	*	0.1
Single people with 2 children and 1 or more dependants	4 4 0	380	*	0.1
Married couples	6 0 0	315	1.1	2.2
Married couples with 1 child or dependant	9 0 0	415	1.4	4.2
Married couples with 1 child and 1 or more dependants	12 0 0	470	0.1	0.3
Married couples with 2 or more dependants	12 0 0	500	*	0.1
Married couples with 2 children	4 4 0	435	0.7	2.8
Married couples with 2 children and 1 or more dependants	7 4 0	over 500	*	0.2
Married couples with 3 children and 1 or more dependants	2 18 0	over 500	*	0.1
Total	...	...	5.6	13.3

* Less than 0.1 million but covering at least 0.1 million persons.

NOTE. The critical income levels shown in column 3 can only be approximate, since the allowances for dependants are not as rigid as the married and children's allowances. Although the calculations may be slightly out in detail because of this, the general result can hardly be very different.

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[1] The figures for the critical income levels in Table V column 3 are taken from Mr. Ross's article in BULLETIN, Vol. 14, No. 3. Mr. Ross did not include the increased National Insurance contribution in his calculation. Since, however, the inclusion of one contribution per family merely shifts all the critical levels down by £1 14s. 8d. p.a., and since Mr. Ross's figures were intended only as rough approximations, we have retained his figures here.

Of the 14¼ million incomes in the £135—£500 a year range, nearly 6 millions of their owners are worse off. Over 13 million people of the 28 millions covered by these incomes are worse off.

The distribution of incomes is such that, taking into account another relatively small budget burden, the extra National Insurance contributions, and also the extra 4d. a head per week for higher cost of home-produced food, announced in the budget statement, another 2 million families, covering over 4 million people must be classed among the losers.

There remain the people with incomes of more than £500 a year who are also worse off, because the taxes they paid before the budget were not big enough for the concessions to offset the burdens. There are probably some 100,000 such incomes covering getting on for three-quarters of a million people.

We are now left with the 6 million people outside the tax assessment figures. The largest identifiable group are the pensioners. It appears that the increases in State pensions and supplementary benefits will about cover the additional burdens. For the remaining 3—5 millions, say 4 millions, most of those outside institutions (including tax evaders!) must be among those worse off.

There are, according to these calculations, a grand total of 17¼—19¼ million people worse off as a result of the reduction in food subsidies, not fully offset by tax concessions or family allowances. When the extra National Insurance contribution and forecast increase in the cost of home-produced food is also added in, there are another 4 million people worse off on balance.

It is also interesting to note that this part of the population includes 6 million of the country's 11 million children.

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THE FOOD SUBSIDIES AND THE BUDGET

A CORRECTION

The note on the 'Food Subsidies and the Budget' in the BULLETIN for March 1952 contains two errors. (1) The three shillings a week increase in family allowances gives a benefit of £7.8 p.a. for each child after the first, not £7.4 as stated.[1] (2) The reduction of £160m. in the total subsidy bill implies an increase in the cost of buying the same quantity of food of 1s. 2½d. per head per week, not 1s. 2d. as stated.[2] This is £3.15 p.a. for each member of the family.

The table of gains and losses for persons with all income earned[3] has therefore to be revised slightly: it should read:

INCOME ALL EARNED INCOME

1. Single Persons—

Income	*Gain from Income Tax*	*Loss on Subsidy*	*Net Gain*
£	£	£	£
200	2.15	3.15	— 1.00
225	4.75	3.15	+ 1.60
500	18.15	3.15	+ 15.00
1,000	36.55	3.15	+ 33.40
2. Childless Married Couples			
250	1.50	6.30	— 4.80
300	4.00	6.30	— 2.30
350	9.15	6.30	+ 2.85
500	14.80	6.30	+ 8.50
1,000	41.30	6.30	+ 35.00
3. Married Couples with One Child			
300	nil	9.45	— 9.45
350	3.00	9.45	— 6.45
400	7.85	9.45	— 1.60
500	18.15	9.45	+ 8.70
1,000	48.45	9.45	+ 39.00

4. Married Couples with Two Children

Income	*Gross gain from Income Tax*	*Gain from Family Allowance*	*Extra Tax Liability*	*Loss on Subsidy*	*Net Gain*
£	£	£	£	£	£
400	nil	7.80	nil	12.6	— 4.8
500	11.65	7.80	1.15	12.6	+ 5.7
1,000	55.35	7.80	3.0	12.6	+ 47.55
5. Married Couples with Three Children					
500	nil	15.60	nil	15.75	— 0.15
600	15.50	15.60	2.35	15.75	+ 13.00
1,000	54.0	15.60	5.75	15.75	+ 48.10

These corrections are not large enough to affect the 'critical income levels' shown on p. 71, since the critical levels were found by interpolation, which is necessarily somewhat imprecise.

C. R. ROSS.

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[1] BULLETIN, March 1952, p. 67.

[2] Loc. cit. p. 67. The Economic Secretary to the Treasury—*Hansard*, March 12th, col. 1509.

[3] Loc. cit. p. 68.